



THE WISCONSIN DEPARTMENT OF ENVIRONMENTAL RESOURCES & THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY TEAM UP TO COMPLETE WORK AT THE ASHLAND / NORTHERN STATES POWER LAKEFRONT SUPERFUND SITE UTILIZING EPA'S SUPERFUND AUTHORITY

XCEL ENERGY UNDER ADMINISTRATIVE ORDER TO PAY FOR AND COMPLETE ENVIRONMENTAL INVESTIGATION & CLEANUP ANALYSIS

INTRODUCTION

The State of Wisconsin and the United States Government each have numerous laws and regulations concerning environmental protection and cleanup. Wherever the State has an equivalent or more stringent law or regulation than the Federal government, the State usually enforces those laws or runs the regulatory program concerning that law. However, the law commonly known as Superfund, is rather unique and does not have an exact State counterpart. In certain circumstances, the Federal government can assist a State in the investigation and cleanup of a property through use of its Superfund authorities. The Ashland/Northern States Power Lakefront Site (the Site) is such an example.

SITE LOCATION

The Site, located in Ashland, Wisconsin, is bordered by US Highway 2 to the south, Prentice Avenue to the east, Ellis Avenue to the west, and Chequamegon Bay to the north. Any areas where contamination extends beyond these boundaries would also be considered part of the Site. The properties on which contamination is located encompass approximately twelve acres and includes the former manufactured gas plant property (currently owned by Xcel Energy, previously owned by Northern States Power Company), the Wisconsin Central Limited Railroad Corridor, the City of Ashland's former waste water treatment plant / Kreher Park and contaminated sediments in Chequamegon Bay.

SITE BACKGROUND

A manufactured gas plant (MGP) facility formerly owned by the Ashland Light, Power, and Street Railway Company, the Lake Superior District Light Company and a succession of other companies operated on the southwest corner of 3rd Avenue and Prentice Street from the late 1800s to approximately 1947. The MGP discontinued the manufacture of natural gas from coal at this time, and has since been converted to an office and maintenance facility. This facility encompasses approximately 2 acres. Throughout its operation, the MGP produced gas utilizing different processes, equipment, and feedstock. The plant reportedly produced gas by coal carbonization until approximately 1920, when the plant was reportedly converted to a carbureted water gas process. During MGP operation residual coal tar was produced as a by-product from the manufacture of coal gas and water gas. On-site fill soils contaminated with coal tar have been found with free product coal tar at the base of a former ravine that extends north-south across the facility, indicating that some of the coal tar was disposed on site. Historic drawings of record note a pipe running from the MGP north with a caption, 2" to abandoned tar dump.

Prior to 1909, a ravine extended through the upper bluff area in the vicinity of the property. The ravine was a natural erosional feature, which historically discharged surface water from the upper bluff area to Chequamegon Bay. The ravine was filled-in by 1923. Soil and groundwater samples collected from the former ravine show contamination of volatile and semi-volatile organic compounds consistent with coal tar wastes.

The lakefront property itself is owned by the City of Ashland and is approximately 10 acres in size. It is bordered by Prentice Avenue to the east, Ellis Avenue to the west, Chequamegon Bay to the north, and the Wisconsin Central railroad to the south. The former City of Ashland Waste Water Treatment Plant (WWTP) is located in the northeast corner. This property has been the location of industrial activities over the past 150 years and is currently the location of a recreational park (Kreher Park). A series of sawmills operated in this area from the early 1800s through 1931. The City-owned parcels of the lakefront were created in the late 1800s and early 1900s by the placement of fill materials into Chequamegon Bay. The fill material identified to date includes wood wastes, clay, silt, peat, and sand. Fill soils typically consist of a surficial soil layer overlying a layer of slab wood and sawdust mixed with some soils. In the western portion of the lakefront, the City operated a waste disposal facility. Uncontrolled filling of the rest of this area occurred during and after the operation of the sawmills.

In 1989 the City of Ashland performed an investigation on the Kreher Park area for the possible expansion of the WWTP. The discovery of contamination from what was believed to be creosote wastes in the subsoils and ground water at Kreher Park prompted the City to abandon the project, and construct a new treatment facility at another location. WDNR performed a historical review, excavated a series of test pits and installed numerous monitoring wells at Kreher Park and the former MGP property. Both WDNR and Xcel Energy performed studies and implemented limited response actions (e.g., removal of contaminated soil, placement of warning signs) to address the situation throughout the 1990s. However, in 1999, a citizen petitioned for the Site to be added to the Federal government's Superfund National Priorities List. It was proposed

in December 2000, underwent a public comment period, and was placed on the list in October 2002.

WHAT IS SUPERFUND AND THE NATIONAL PRIORITIES LIST AND WHY IS XCEL ENERGY INVOLVED NOW?

Placement on the National Priorities List enabled the Site to be eligible for an extensive, long-term cleanup program that will permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening. Placement on the list also makes the Site eligible for Superfund trust money.

Superfund is a nickname for the Comprehensive Environmental Response, Compensation and Liability Act which provides the EPA with a broad range of enforcement authorities such as searching for the entities responsible for the contamination, ordering those entities (called Potentially Responsible Parties or PRPs) to perform scientific and engineering work necessary to clean up a site, negotiate legal settlements with PRPs to clean up sites, and take legal actions if PRPs refuse to perform or pay for the clean up work. One goal of the Superfund enforcement program is to make PRPs pay for the environmental damage they have caused.

EPA and WDNR considered various possibilities for this Site once it was placed on the NPL and became eligible for trust money and Superfund enforcement actions. Because immediate threats such as the seep were already addressed, signs and buoys were already serving to restrict access to the contaminated area of the Bay, and WDNR determined that contamination in the sediments and groundwater were not an emergency situation, it was determined that it was appropriate to pursue the PRP for completion and payment of the scientific and engineering studies necessary to implement the final and long-term actions necessary to address the entire Site.

Therefore, utilizing its authority pursuant to the Superfund law, EPA notified Xcel Energy of its status as a PRP in August 2003 (the Superfund law has a provision that assesses responsibility of contaminated property to the owner of the property, the generator of the waste, and/or the transporter of the waste).

EPA, in consultation with WDNR, entered into settlement negotiations with Xcel Energy. In November 2003, Xcel Energy signed an Administrative Order on Consent with EPA that requires it to complete the studies WDNR initiated and pay for EPA's and WDNR's oversight work (to ensure that Xcel Energy performs the work in accordance with all of the requirements).

WHAT IS THE CURRENT STATUS OF THE WORK?

Xcel Energy, as required by the Order, submitted its plan to complete the work in February 2004. This document was of a highly complex technical nature, and has been through a very thorough technical review by the State, Tribal, and Federal agencies. EPA sent comments and revisions to Xcel in July 2004. Xcel Energy is currently making changes to the work plan and the technical reviewers will be meeting in September to answer any outstanding questions and come to agreement on the final plans for field work and the overall project schedule.

WHY DID THE WORK PLAN REVIEW REQUIRE SO MUCH TIME?

The review of the work plan itself required a lengthy review process because it is a highly complex scientific and engineering study. EPA provided the plan to our in-house experts in various fields such as hydrogeology, human health toxicology, ecological toxicology, freshwater biology, Great Lakes ecology, as well as to the WDNR, the Wisconsin Department of Health, the National Oceanic and Atmospheric Administration, the Bad River Band and Red Cliff Band of the Lake Superior Chippewa Indians, as well as to EPA's outside contractor for additional expertise in MGP type waste sites. We strive for quick turn-around times, but must face the reality of various peoples' schedules and workloads, too. The plan addresses numerous tasks to be completed and we wanted to ensure that all of the bases were covered.

This work plan must get us the data to come up with a protective and permanent remedy that will be successful in the long-term. It covers many disciplines and contains many fine details. Besides technical adequacy, EPA and WDNR must ensure it complies with our regulations. The bulk of the work plan covers aspects such as finding coal-tar-related substances that have migrated down into the groundwater. Previous WDNR studies showed us where some of this material is, but didn't show how far it has traveled and exactly where it has traveled to (as that wasn't part of the work WDNR needed to do for its particular requirements). These chemicals do not necessarily travel in the same direction that the ground water travels, which makes the investigation work very complicated. We also have to identify areas of contamination that were buried somewhere under the present park land (when the land was first created by filling in Chequamegon Bay), or demonstrate that there are no other such sources as are theorized based upon historical accounts. We also have to figure out how the contamination has affected wildlife and plants that utilize Chequamegon Bay so that we can ensure that any cleanup work performed will, in fact, be effective. Previous WDNR work accomplished this to some extent, but the experts agreed that more information is required. We also need to factor in how any remedy might also affect the wildlife and plants, as well as the community and land-use. Most difficult, perhaps, is ensuring that we know exactly how contamination got into the Bay in the first place (and may still be getting into the Bay). WDNR studies demonstrate that at least some of the contaminants got into the Bay through an old discharge pipe (e.g., the seep that was capped as part of a WDNR interim cleanup action) from the former MGP during its operations. But, there may also be continued discharge, slowly, by groundwater flowing up into the Bay from beneath. This continued discharge would contain contaminants from the old MGP as well as other material buried beneath the present-day Kreher Park. Implementing a remedy without this information could cause us to create a worse problem.

WHY WOULD IMPLEMENTING A REMEDY BEFORE WE HAVE ALL THE FACTS CAUSE A PROBLEM?

Implementing a remedy of some type before we know whether or not ground water and contaminants are flowing up into the Bay could cause a worse situation. For example, if we started dredging the Bay, we could create an upward flowing drain that could pull contaminants more quickly out into the Bay. Alternatively, placing a cap or barrier around the current known extent of contaminated sediments could cause the

groundwater contamination to travel somewhere else instead, and affect a larger area, or an area that currently has not been affected. We need, for either case, to know if contaminated groundwater is flowing up into the Bay and if it is, exactly where it is going. Only then could we build an engineering barrier to contain it or install a pumping system to remove it.

WOULD IT HAVE BEEN FASTER FOR EPA OR WDNR TO WRITE THE WORK PLAN?

EPA and WDNR have technical staff and outside contract staff to write technical study work plans, and in cases where no PRPs are found, EPA or its contractors prepare the work plans. There is a similar review process, "in-house" to ensure all the requirements are met. The PRPs hire contractors to write technical work plans also. The PRPs must first provide EPA with the firm it selects to do the work and EPA requires that such firms be technically qualified to perform the work. For this Site, we believe the time-frames would have been equivalent to write a work plan and get it thoroughly reviewed. This work plan covers soil sampling, air sampling, sediment sampling, groundwater sampling, and engineering-type studies of the sediments in Chequamegon Bay. The type of work and the sampling to be performed are highly complex and precise. It is important to be thorough and precise in our assessment now, so that we can minimize changes out in the field once sampling work gets started. The PRP wrote the work plan in a very timely manner. We believe the time-frames for completing the work are equivalent, whether the PRP drafts the first version of the plan or EPA drafts the first plan. We hope that the time we spent now, performing our very thorough review, will help save time in the future.

A BRIEF HISTORY OF THE FILLED LAND (KREHER PARK & SHORELINE)

1884 – 1939	Filled area used by various lumber companies
1942	Ashland County transferred title of filled land (formerly used by lumber companies) to the City of Ashland
1951	City of Ashland built its waste water treatment plant
Mid 1980s	Marina extension of Ellis Avenue completed
1989	City of Ashland discovered contaminated soil and groundwater during its exploratory excavations in Kreher Park to expand the waste water treatment plant.
1994	WDNR initiated an investigation of the waste water treatment plant area to characterize the contamination found by the city.

A BRIEF HISTORY OF THE OWNERSHIP OF THE MANUFACTURED GAS PLANT PROPERTY

1887 -1922	Ashland Light, Power and Street Railway Company 1887 – 1909: coal gas facility (coal and carbureted water) 1895 – 1923: conversion to Lowes carbureted water gas process
1922 – 1983	Lake Superior District Power Company 1923 – 1947: Only utilized the carbureted water gas process After 1947: carbureted water gas process retired and plant converted to liquid petroleum (propane)
1983 – 1999	Northern States Power Company
1999 – Present	Xcel Energy

A BRIEF HISTORY OF ENVIRONMENTAL WORK AT THE SITE

1994 -2003	WDNR investigation of contamination at the former waste water treatment plant property, sediment in Chequamegon Bay and the former manufactured gas plant facility
1995	WDNR and Xcel Energy installed signs and navigational buoys along the lakefront and in Chequamegon Bay to restrict access to the known areas of contamination
1998 – 1999	WDNR collected fish from the Kreher Park lakefront
1999	Citizen petition for the contaminated properties to be considered for the National Priorities List
September 2000	Xcel Energy initiated an interim cleanup action; coal tar removal from the Copper Falls Aquifer and performance of quarterly monitoring of the groundwater, including the city's artesian wells, as well as air monitoring
December 2000	Site proposed for the National Priorities List

2002	Xcel Energy removed contaminated soils from a coal tar seep area near the manufactured gas plant property. The seep was backfilled with clean soil and an additional extraction well was installed to prevent recontamination of this area
October 2002	Site added to the National Priorities List
2002 – 2003	WDNR continues investigatory work. EPA works with WDNR to assess whether the investigation meets the requirements of the Superfund law (to ensure that a permanent and protective remedy can be implemented and that the PRPs can be held accountable for investigation and cleanup costs). Data gaps are identified and EPA and WDNR work together on a plan to address the data gaps.
August 5, 2003	EPA notifies Xcel Energy of its liability pursuant to Superfund for this Site
August 26, 2003	Xcel Energy provides EPA with a good faith offer to complete the investigation and study work required for the Site (including payment of the agencies' oversight costs)
November 14, 2003	Xcel Energy enters into an Administrative Order on Consent (AOC) with EPA to complete the study and reimburse the agencies' oversight costs
December 2003	Xcel Energy installs monitoring wells WDNR had recommended prior to the AOC to help streamline the project
February 19, 2004	Xcel Energy submits its Draft Remedial Investigation and Feasibility Study Work Plan to complete the necessary work
February – July 2004	EPA, Chippewa Nation, National Oceanic Atmospheric Administration, WDNR review Xcel's submission and provide revisions; Xcel performs limited fish sampling (smelt) to address anglers' concerns and installs additional monitoring wells requested by EPA and WDNR (part of the new work plan that EPA approved early and separately).
August – September 2004	Xcel will finalize work plan and initiate field work once the work plan is approved by the agencies. (Groundwater monitoring and the interim remedy are on-going throughout the process)

COMMUNITY INVOLVEMENT & SUPERFUND

EPA applies the term **community involvement** to its commitment to early and meaningful community participation during Superfund work. The foundation of Superfund's community involvement program is the belief that members of the public affected by a Superfund site have a right to know what the Agency is doing in their community and to have a say in the decision-making process.

The goal of Superfund community involvement is to advocate and strengthen early and meaningful community participation during Superfund cleanups. Superfund community involvement staff will strive to:

- Keep the community well informed of ongoing and planned activities.
- Encourage and enable community members to get involved.
- Listen carefully to what the community is saying.
- Take the time needed to deal with community concerns.
- Change planned actions where community comments or concerns have merit.
- Explain to the community what EPA has done and why.

EPA develops a **Community Involvement Plan** (CIP) based on community interviews and other information.

In March 2004, EPA and WDNR interviewed over 40 people representing a mix of residents, business owners, local officials, and community leaders to gather information on the community's preferences for getting Site information and participating in the process. This information was used to develop the CIP. The CIP is never a final document. EPA and WDNR welcome comments and recommendations on the CIP at any time. EPA and WDNR will update the CIP on a semi-annual or annual basis, or more often, as necessary.

WDNR has been tasked by EPA to run the Community Involvement program for this Site. WDNR has contracted with the Sigurd Olsen Environmental Institute (Northland College) to help in performance of this work. It is important to note, however, that the community involvement work, just like the technical oversight work, is a team effort and EPA and WDNR essentially work together and divide up the work load to ensure that all work is accomplished in an effective manner. Questions and comments regarding the Community Involvement Plan and implementation of the program can be directed to either:

John Robinson, Ashland/NSP Community Involvement Coordinator
WDNR
Remediation & Redevelopment Program
101 Sutliff Avenue
Rhineland, Wisconsin 54501
Voice: 715-365-8976 voice
Fax: 715-365-8932 fax
Email: john.robinson@dnr.state.wi.us

or

Briana Bill, Ashland/NSP Community Involvement Coordinator
US EPA – Region 5
Office of Public Affairs (P-19J)
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Voice: 312-353-6646
Toll Free: 800-621-8431 ext. 36646
Fax: 312-353-1155
Email: bill.briana@epa.gov

We have developed a list of frequently asked questions, based upon our community interview work. We hope you find our answers helpful. If you don't, please let us know!

FREQUENTLY ASKED QUESTIONS

1. IS WDNR AND THE WDNR PROJECT MANAGER STILL INVOLVED IN THE SITE?

Yes. WDNR is very much involved in the work on this site, and day to day work hasn't really changed that much. Instead of a contractor hired and paid for by WDNR (as was the case previously), a contractor hired and paid for by Xcel Energy will be out in the field performing the work. As before, WDNR and EPA will be overseeing a contractor. It is just that it is a contractor hired and paid for by the PRP instead of either an EPA or WDNR direct-hired contractor.

Because it is a contractor hired by Xcel Energy however, EPA and WDNR will be performing a higher level of oversight. Also, since EPA has issued the Order to Xcel Energy to compel it to perform this work, under EPA's Superfund authority, EPA has the responsibility for ensuring compliance with the Order. As such, EPA has the bulk of the administrative and oversight responsibilities for the Site. WDNR continues on in its technical role, however, because under Superfund, EPA gives States the opportunity to concur on the remedy ultimately selected for the Site. In order to be able to concur on a remedy, the State must participate in the technical aspects of the investigation and study.

WDNR's Project Manager, Jamie Dunn, has a lengthy history with this project and we are fortunate that he will remain on board for this phase of the study

2. WHO DO I CALL IF I HAVE TECHNICAL QUESTIONS ON THIS SITE?

You may contact either EPA or WDNR. Jamie Dunn and Sharon Jaffess, EPA's Project Manager, are working as a technical team.

Sharon Jaffess, Project Manager
US EPA – Region 5
Superfund Division (SR-6J)
77 W. Jackson Blvd.
Chicago, IL 60604-3590
Voice: 312-353-0536
Toll Free: 800-621-8431 ext. 30536
Fax: 312-886-4071
Email: jaffess.sharon@epa.gov

Jamie Dunn, Project Manager
WDNR
Remediation & Redevelopment Program
810 W. Maple Street
Spooner, WI 54801
Voice: 715-635-4049
Fax: 715-635-4105
Email: james.dunn@dnr.state.wi.us

3. WHY ARE MORE STUDIES BEING PERFORMED?

The investigation work completed by WDNR was able to link contamination found down by the City's old waste water treatment plant and in Chequamegon Bay with the old MGP facility. However, that work didn't provide information on other contaminant sources that may also be contributing to the problem in the Bay. It is important to ensure that other such old buried waste areas are also addressed in our future cleanup work. Otherwise, the areas we clean up could get recontaminated. In addition, the old coal tar waste that has found its way down into the groundwater has been found in a few locations. However, the extent of migration has not yet been defined. Any effective cleanup will have to ensure that we know its boundaries. Additional information is also needed to confirm the extent of sediment contamination in the Bay and whether or not it is being transported further out into Lake Superior.

4. WHY DOES THIS WORK TAKE SUCH A LONG TIME?

We agree that our scientific and engineering studies are lengthy. However, they are no more lengthy than other scientific and engineering studies of this caliber. It is important to note, however, that we only utilize these long-term studies in situations where there is no immediate health threat or emergency. If a Site poses an immediate danger to human health and the environment, EPA utilizes its special emergency "removal" response authorities to immediately eliminate risk. Once the site is stabilized, it then goes into the long-term "remedial" response program.

In a situation such as this Site, where the coal tar contamination has been in the ground and the Chequamegon Bay inlet for over a century, and doesn't present an immediate health risk, we utilize our long-term "remedial" response authorities.

In general, the amount of time it takes to investigate and clean up a hazardous waste site depends upon the risk it poses to human health and the environment, the volume, extent, type and location of the contamination, and the cleanup alternative that is selected. For example, sites that require the removal of barrels to eliminate an explosion or fire can take only a few hours, whereas a site with groundwater contamination can take many years.

A site such as this one, where there are multiple source areas buried beneath the ground, a complex mix of chemicals, and artesian aquifer conditions, the field work and data gathering is a lengthy process. Additionally, data must be collected over many different seasonal conditions as the variations in ground water and lake levels can cause different migration pathways for the contamination.

5. WHAT IS THE WORK THAT MUST BE COMPLETED AT THIS POINT AND HOW WILL A REMEDY BE CHOSEN?

Pursuant to specific direction provided by EPA and WDNR to Xcel Energy, Xcel Energy prepared a remedial investigation and feasibility study (RI/FS) work plan. Xcel Energy wrote the plan using EPA approved scientific and engineering guidance documents. Xcel Energy submitted the work plan to EPA for approval. EPA provided copies of this work plan to WDNR, the Bad River Band and Red Cliff Band of the Lake Superior Chippewa Indians environmental offices, and the National Oceanic and Atmospheric Administration for technical review. As with any highly technical document, some revisions will be required and EPA provided the comments and revisions to Xcel Energy in July 2004. In order to ensure that all of the revisions are made to EPA's satisfaction, a meeting amongst all the technical reviewers and Xcel Energy will be held in September 2004, at which time the Work Plan will be finalized and a schedule for field work will be finalized.

The field work includes: soil sampling in the residential area surrounding the former MGP facility, soil sampling and test pit sampling near the marina and Kreher Park, air and soil gas monitoring, sediment sampling, and habitat surveys. In addition, it is expected that some additional fish sampling will occur.

Once field work is completed, an investigation report, providing the results of the sampling, will be submitted for review by Xcel Energy. Again, EPA and its technical partners will review the document and may instruct Xcel Energy to revise the document. Xcel Energy will also submit documents concerning cleanup options for the site, which will be evaluated, in great detail, in a Feasibility Study report. All cleanup options will be evaluated to ensure that they are:

1. Protective of human health and the environment and
2. Can achieve all applicable or relevant and appropriate requirements (that is, the remedy will meet other laws and regulations).

Any options which do not meet these two criteria, have to be removed from consideration. All options that do meet these criteria undergo further evaluation against these six additional criteria (in no particular order): long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; cost; and state and community acceptance.

Again, EPA and its technical partners will review the Feasibility Study and then, based upon the evaluation against the nine criteria mentioned above, propose the remedy that meets all of the criteria the best. Throughout this process, EPA will be keeping the community informed.

EPA will issue a Proposed Plan for public input and only after public input, would EPA select the remedy. The selected remedy will be documented in a Record of Decision.

6. WHO WILL PAY FOR THE CLEANUP AND WHEN WILL IT BEGIN?

One of EPA's top priorities is to get those responsible for the contamination (the PRPs) to clean up the site. If the PRP cannot be found, is not viable, or refuses to cooperate, EPA, the State, or Tribe may cleanup the site using Superfund money. EPA may seek to recover the cost of clean up from those parties that do not cooperate.

Typically, at the same time that EPA signs a Record of Decision (ROD) for the cleanup (the ROD contains the blueprint for the cleanup work to be performed), EPA also issues notice letters to PRP informing them that they are potentially liable for the costs. PRPs will typically respond with an offer to cleanup the site. EPA can negotiate a Consent Decree with such parties and/or order such parties to perform the cleanup. Once a settlement is reached (typically within a 3 to 6 month period), cleanup work can be initiated. Depending upon the type of cleanup, work can either commence immediately or in the case of engineering work, some plans and specifications must be prepared before mobilizing to the Site.

7. WHY IS IT SAFE TO BE ON THE EAST SIDE OF THE BOAT LAUNCH BUT NOT ON THE WEST SIDE?

WDNR sampling performed up until now indicates that contaminants are prevalent within the inlet closest to the old waste water treatment plant and it appears that the jetties serve as a natural physical barrier, preventing much contaminant flow outside of their boundaries. Visual observation during storm events reveals oil slicks only within the boundary of jetties, and not outside of the jetties. We therefore believe that it is still safe at the nearby swimming beach and at the marina. We will be conducting additional sediment and water sampling out beyond the swimming beach to ensure that the circumstances have not changed since WDNR's last sampling event.

8. HOW IS CONTAMINATION BEING TESTED AND WHY ARE THERE SO MANY TEST WELLS?

We will be testing soil, sediment, bay water, groundwater, and air. We will also be surveying the habitat to see how it has been degraded by the contamination (or if the habitat is still okay). We will also be testing areas outside of the site, "background" locations, for comparison. We will be testing for the chemicals that we suspect to be

present (such as from coal tar), as well as other chemicals to ensure that there aren't any unknown sources we haven't discovered yet.

We have numerous test wells because we need to look at the groundwater in multiple geologic formations beneath the ground and need to find the extent of the groundwater contamination over the entire Site acreage. We will need to look beyond the extent of the Site, as well, to ensure that we have found the boundaries of the contamination.